What is claimed is:

1. A method comprising:

connecting one or more anode connection members of one or more anode foils together with one or more cathode connection members of one or more cathode foils; and

electrically isolating the one or more anode foils from the one or more cathode foils.

2. The method of claim 1, wherein electrically isolating comprises separating a portion of the one or more anode connection members from a portion of the one or more cathode connection members.

3. The method of claim 1, wherein electrically isolating comprises removing a commonly positioned portion of each of the one or more anode connection members and the one or more cathode connection members.

4. The method of claim 1, wherein electrically isolating comprises laser cutting a commonly positioned portion of each of the one or more anode connection members and the one or more cathode connection members.

5. The method of claim 1, wherein connecting comprises connecting during a continuous connection process.

6. The method of claim 1, wherein connecting comprises using an uninterrupted welding process to connect one or more edges of a distal portion of each of the one or more anode connection members to one or more edges of a distal portion of each of the one or more cathode connection members.

7. A method comprising:

positioning an anode connection member having a distal section and a proximal section and a cathode connection member having a distal section and a proximal section so that the distal section of the anode connection member overlays the distal section of the cathode connection member;

connecting the anode connection member and the cathode connection member; and

forming a separation in the distal section of the anode connection member and the distal section of the cathode connection member, wherein the proximal section of the anode connection member is electrically isolated from the proximal section of the cathode connection member.

8. The method of claim 7, wherein positioning further comprises positioning the anode connection member and the cathode connection member so that the proximal section of the anode connection member does not overlay the proximal section of the cathode connection member.

9. The method of claim 7, wherein connecting comprises connecting the distal section of the anode connection member and the distal section of the cathode connection member.

10. The method of claim 7, wherein forming a separation comprises removing a portion of the distal section of the anode connection member and the distal section of the cathode connection member.

11. The method of claim 10, wherein removing comprises punching-out.

12. The method of claim 10, wherein removing comprises laser cutting.

13. The method of claim 7, wherein connecting comprises a continuous connection process.

14. The method of claim 13, wherein the continuous connection process comprises edge-welding at least a portion of the distal sections of the anode connection member and the cathode connection member together.

15. The method of claim 7, wherein the anode connection member includes at least a partially unetched portion.

16. Foil structures for use in constructing a capacitor, the foil structures comprising:

an anode foil having a connection portion comprising a proximal section and a distal section; and

a cathode foil having a connection portion comprising a proximal section and a distal section;

wherein the proximal section of the anode foil does not overlay the proximal section of the cathode foil and the distal section of the anode foil at least partially overlays the distal section of the cathode foil when the anode foil and the cathode foil are stacked together.

17. The foil structures of claim 16, wherein the connection portion of the anode foil comprises an L-shaped member.

18. The foil structure of claim 17, wherein the connection portion of the cathode foil comprises an L-shaped member, the cathode L-shaped member having a generally reverse image relative to the anode L-shaped member when the anode foil and the cathode foil are stacked together.

19. The foil structure of claim 16, wherein the anode connection member includes at least a partially unetched portion.

20. A capacitor having a capacitor stack constructed by the method of claim 1.

21. An implantable medical device comprising:

one or more leads for sensing electrical signals of a patient or for applying electrical energy to the patient;

a monitoring circuit for monitoring heart activity of the patient through one or more of the leads; and

a therapy circuit for delivering electrical energy through one or more of the leads to a heart of the patient, wherein the therapy circuit includes one or more making capacitors having a capacitor stack constructed by the method of claim 1.

22. A capacitor, comprising:

a first anode layer;

a second anode layer;

a cathode layer between the first anode layer and the second anode layer;

a first separator layer between the first anode layer and the cathode layer;

a second separator layer between the second anode layer and the cathode layer; and

a conductive interconnect between the first anode layer and the second anode layer, the conductive interconnect passing through a cathode hole in the cathode;

wherein the conductive interconnect has a cross section which is smaller than the cathode hole and the conductive interconnect is placed to avoid direct electrical contact with the cathode layer and wherein the first anode and the second anode are electrically connected through the conductive interconnect.

23. The capacitor of claim 22, wherein the first anode layer is substantially flat.

24. The capacitor of claim 22, wherein the conductive interconnect is aluminum.

25. The capacitor of claim 22, wherein the cross section is circular.

26. The capacitor of claim 22, wherein the cross section is noncircular.

27. The capacitor of claim 22, wherein the conduction interconnect is ultrasonically welded to the first anode layer and the second anode layer.

28. The capacitor of claim 22, wherein the conduction interconnect is resistance welded to the first anode layer and the second anode layer.

29. The capacitor of claim 22, wherein the conductive interconnect mates to an unetched region of the first anode layer.

30. The capacitor of claim 22, wherein the conductive interconnect mates to an unformed region of the first anode layer.

31. The capacitor of claim 22, wherein the conductive interconnect includes a rivet.

32. The capacitor of claim 22, wherein the conductive interconnect includes a wire.

33. The capacitor of claim 22, wherein the conductive interconnect includes a conductive epoxy.

34. The capacitor of claim 22, wherein the conductive interconnect includes a conductive polymer.

35. The capacitor of claim 22, wherein the conductive interconnect includes a polyimide filled with aluminum.

36. The capacitor of claim 22, wherein the conductive interconnect includes a fused aluminum powder.

37. The capacitor of claim 22, wherein the conductive interconnect includes a conductive staple.

38. A method, comprising:

masking an anode foil;

etching the anode foil;

removing masking from the anode foil, exposed unetched regions;

forming oxide on the anode foil;

cutting anode shapes from the anode foil;

layering a first anode foil with a first separator layer, the first separator layer including first separator holes positioned approximately over the unetched regions of the first anode foil;

layering a cathode foil over the first separator layer, the cathode foil having cathode holes positioned approximately over the first separator holes;

placing a conductive interconnect through each cathode hole and first separator hole to contact an unetched region of the first anode layer;

layering a second separator layer over the cathode layer, the second separator layer including second separator holes positioned approximately over the cathode holes; and

layering a second anode layer over the second separator layer, the second anode layer having its own unetched regions contacting the conductive interconnect.

39. The method of claim 38, wherein the conductive interconnect is a metal plug.

40. The method of claim 38 wherein a robot is used for assembly.